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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,697	10/21/2003	Omer Dokumaci	FIS920020134U2	2696
29371	7590	12/13/2004	EXAMINER	
CANTOR COLBURN LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			NOVACEK, CHRISTY L	
			ART UNIT	PAPER NUMBER
			2822	

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/605,697	Applicant(s) DOKUMACI ET AL. AK	
	Examiner Christy L. Novacek	Art Unit 2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7 and 8 is/are rejected.
- 7) ☒ Claim(s) 4-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/28/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the amendment filed September 28, 2004.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-3 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Forbes et al. (US 6,372,618).

Regarding claim 1, Forbes discloses forming a lower polysilicon region (108) on a gate dielectric layer (106), implanting the lower polysilicon region with a dopant at a first dopant concentration, forming a conductive barrier layer (110) upon the lower polysilicon region, forming an upper polysilicon region (120) on the conductive barrier layer and implanting the upper polysilicon region with a dopant at a second dopant concentration such that the second dopant concentration is different from the first dopant concentration (Fig. 4; col. 5, ln. 22 – col. 6, ln. 39).

Regarding claim 2, Forbes discloses forming a silicide layer on the upper polysilicon region (col. 6, ln. 40-48).

Regarding claim 3, Forbes discloses that the conductive barrier may be made of TiN (col. 5, ln. 33-35).

Regarding claim 8, Forbes discloses that the second dopant concentration is less than the first dopant concentration (col. 6, ln. 15-25).

Claims 1, 3 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Gardner et al. (US 6,380,055).

Regarding claim 1, Gardner discloses forming a lower polysilicon region (107) on a gate dielectric layer (102), implanting the lower polysilicon region with a dopant at a first dopant concentration, forming a conductive barrier layer (106) upon the lower polysilicon region, forming an upper polysilicon region (108) on the conductive barrier layer and implanting the upper polysilicon region with a dopant at a second dopant concentration such that the second dopant concentration is different from the first dopant concentration (Fig. 2; col. 5, ln. 26-54).

Regarding claim 3, Gardner discloses that the conductive barrier may be made of TiN (col. 5, ln. 41-45).

Regarding claim 7, Gardner discloses that the upper polysilicon region is formed directly upon a top surface of the conductive barrier layer.

Response to Arguments

Applicant's arguments filed September 28, 2004 have been fully considered but they are not persuasive.

Regarding the rejection of claim 1 as being anticipated by Forbes, Applicant argues that Forbes allegedly fails to disclose the limitation of forming the upper polysilicon region "upon" the conductive barrier layer. As recited in claim 1, the term "upon" has been given its broadest reasonable interpretation. See *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) in which the Court stated, "During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow...". Furthermore, "[A]n examiner has the duty to police claim language by giving it the broadest reasonable interpretation." *Springs*

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Window Fashions LP v. Novo Industries LP, 65 USPQ2d 1826, 1830 (Fed. Cir. 2003). In the absence of Applicant giving the word “upon” any special meaning in his specification, “upon” is being given its standard meaning to one of ordinary skill in the art. One of ordinary skill in the art would not interpret “forming an upper polysilicon region upon said conductive barrier layer” as being limited to the upper polysilicon region being in direct contact with the conductive barrier layer. Furthermore, Applicant has supported the broad definition of “upon” by adding dependent claim 7, which states, “wherein said upper polysilicon region is formed directly upon a top surface of said conductive barrier layer.” If “upon” as recited in claim 1 were limited to direct contact, then claim 7, which depends upon claim 1, would be an improper dependent claim because it would fail to further limit its parent claim. Hence, Forbes meets the limitation in claim 1 of forming the upper polysilicon region “upon” the conductive barrier layer because he discloses the upper polysilicon region being formed in a location that is over the conductive barrier layer. The rejections of claims 1-3 as being anticipated by Forbes are maintained.

Allowable Subject Matter

Claims 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The primary reasons for the indication of allowable subject matter in claims 4-6 were stated in the office action mailed July 28, 2004.

Conclusion

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christy L. Novacek whose telephone number is (571) 272-1839. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on (571) 272-1852. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CLN
December 8, 2004



AMIR ZARABIAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800